

CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-50.
- After this Amendment: Claims 1-7; 8-18; 40-43; and 49-50.

Non-Elected, Canceled, or Withdrawn claims: 19-32; 33-39; 44-48.

Amended claims: none.

New claims: none.

Claims:

1. (ORIGINAL) A method for efficient transmission of TCP/IP headers via a wireless communications link from a sender to a receiver, the method comprising:

obtaining TCP/IP packets having associated TCP/IP headers;

losslessly compressing the associated headers;

feedback-independently transmitting of a plurality of the compressed headers via the communications link;

the transmitting comprising:

adjusting a sliding window within which the plurality of the compressed headers are transmitted, wherein the adjusting is modeled to react to TCP/IP window-size changes that results from the congestion procedures of TCP/IP;

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1 using the sliding window, W-LSB encoding the plurality of the
2 compressed headers;

3 sending the resulting W-LSB encoded plurality of compressed
4 headers.

5
6 2. (ORIGINAL) A method as recited in claim 1, further
7 comprising inferentially determining whether there is an inconsistent context
8 between the sender and the receiver.

9
10 3. (ORIGINAL) A method as recited in claim 1, further
11 comprising:

12 inferentially determining whether there is an inconsistent context between
13 the sender and the receiver,

14 if so, then refreshing the context between the sender and the receiver.

15
16 4. (ORIGINAL) A method as recited in claim 1, wherein the
17 sender is a header compressor (HC) and the receiver is a header decompressor
18 (HD).

19
20 5. (ORIGINAL) A computer comprising one or more computer-
21 readable media having computer-executable instructions that, when executed by
22 the computer, perform the method as recited in claim 1.

1 6. (ORIGINAL) A computer network comprising a computer
2 comprising one or more computer-readable media having computer-executable
3 instructions that, when executed by the computer, perform the method as recited in
4 claim 1.

5
6 7. (ORIGINAL) A computer-readable medium having computer-
7 executable instructions that, when executed by a computer, performs the method
8 as recited in claim 1.

9
10 8. (ORIGINAL) A method for efficient transmission of network
11 transport-layer protocol headers via a communications link, the method
12 comprising:

13 obtaining transport-layer protocol packets having associated transport-layer
14 protocol headers;

15 compressing the associated headers;

16 feedback-independently transmitting of a plurality of the compressed
17 headers via the communications link.

18
19 9. (ORIGINAL) A method as recited in claim 8, further
20 comprising inferentially determining whether there is an inconsistent context,
21 wherein an inconsistent context is when one or more headers are not properly
22 received by a receiver on the communications link.

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1 **10. (ORIGINAL)** A method as recited in claim 8, further
2 comprising:

3 inferentially determining whether there is an inconsistent context, wherein
4 an inconsistent context is when one or more headers are not properly received by a
5 receiver on the communications link;

6 if so, then refreshing the context to make the context consistent.

7
8 **11. (ORIGINAL)** A method as recited in claim 8, wherein, for the
9 compressing, the headers are compressed losslessly.

10
11 **12. (ORIGINAL)** A method as recited in claim 8, wherein the
12 transmitting comprises:

13 adjusting a sliding window within which the plurality of the compressed
14 headers are transmitted;

15 using the sliding window, W-LSB encoding the plurality of the compressed
16 headers;

17 sending the resulting W-LSB encoded plurality of compressed headers.

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1 **13. (ORIGINAL)** A method as recited in claim 8, wherein the
2 transmitting comprises:

3 adjusting a sliding window within which the plurality of the compressed
4 headers are transmitted, wherein the adjusting is modeled to react to window size
5 changes of the transport-layer protocol that results from the congestion procedures
6 of such transport-layer protocol;

7 using the sliding window, W-LSB encoding the plurality of the compressed
8 headers;

9 sending the resulting W-LSB encoded plurality of compressed headers.

10
11 **14. (ORIGINAL)** A method as recited in claim 8, wherein the
12 communications link is wireless.

13
14 **15. (ORIGINAL)** A method as recited in claim 8, wherein the
15 network transport-layer protocol is TCP.


16
17 **16. (ORIGINAL)** A computer comprising one or more computer-
18 readable media having computer-executable instructions that, when executed by
19 the computer, perform the method as recited in claim 8.

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1 **17. (ORIGINAL)** A computer network comprising a computer
2 comprising one or more computer-readable media having computer-executable
3 instructions that, when executed by the computer, perform the method as recited in
4 claim 8.

5
6 **18. (ORIGINAL)** A computer-readable medium having computer-
7 executable instructions that, when executed by a computer, performs the method
8 as recited in claim 8.

9
10
11 **Claims 19-39 are CANCELED.**
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1 **40. (ORIGINAL)** A method for efficient transmission of network
2 transport-layer protocol headers via a communications link, the method
3 comprising:

4 transmitting a plurality of compressed transport-layer protocol headers via
5 the communications link;

6 inferentially determining whether there is an inconsistent context, wherein
7 an inconsistent context is when one or more headers are not properly received by a
8 receiver on the communications link;

9 if so, then refreshing the context to make the context consistent.

10
11 **41. (ORIGINAL)** A method as recited in claim 40, wherein the
12 communications link is wireless.

13
14 **42. (ORIGINAL)** A method as recited in claim 40, wherein the
15 network transport-layer protocol is TCP.

16
17 **43. (ORIGINAL)** A computer-readable medium having computer-
18 executable instructions that, when executed by a computer, performs the method
19 as recited in claim 40.

20
21 **44. (CANCELED)**

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23 **45. (CANCELED)**
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1 **46. (CANCELED)**

3 **47. (CANCELED)**

5 **48. (CANCELED)**

7 **49. (ORIGINAL)** A system for efficient transmission of network
8 transport-layer protocol headers via a communications link, the system
9 comprising:

10 a memory comprising a set of computer program instructions; and

11 a processor coupled to the memory, the processor being configured to
12 execute the computer program instructions, which comprise:

13 obtaining transport-layer protocol packets having associated transport-layer
14 protocol headers;

15 compressing the associated headers;

16 feedback-independently transmitting of a plurality of the compressed
17 headers via the communications link.

19 **50. (ORIGINAL)** A system as recited in claim 49, wherein the
20 processor is further configured to execute the computer program instructions,
21 which comprises inferentially determining whether there is an inconsistent
22 context, wherein an inconsistent context is when one or more headers are not
23 properly received by a receiver on the communications link.

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